

E. Auld

GREEN PAPER ON ENVIRONMENTAL ASSESSMENT

september, 1973

STANDARDS DEVELOPMENT BRANCH, MINE



3 65936 00000 1659

TD
182.4
.05
057
1973
5108



Ministry
of the
Environment

The Honourable
James A.C. Auld
minister

Everett Biggs
deputy minister

Copyright Provisions and Restrictions on Copying:

This Ontario Ministry of the Environment work is protected by Crown copyright (unless otherwise indicated), which is held by the Queen's Printer for Ontario. It may be reproduced for non-commercial purposes if credit is given and Crown copyright is acknowledged.

It may not be reproduced, in all or in part, part, for any commercial purpose except under a licence from the Queen's Printer for Ontario.

For information on reproducing Government of Ontario works, please contact Service Ontario Publications at copyright@ontario.ca

TD
182405
057
1973

GREEN PAPER
ON
ENVIRONMENTAL ASSESSMENT
SEPTEMBER, 1973.

ONTARIO MINISTRY OF THE ENVIRONMENT

The Honourable James A.C. Auld,
Minister.

Everett Biggs,
Deputy Minister.

GREEN PAPER ON ENVIRONMENTAL ASSESSMENT

TABLE OF CONTENTS

	<u>Page</u>
Introduction	1
The Need for Environmental Assessment	3
What Kind of Undertakings Require Environmental Assessment?	10
Content of an Environmental Assessment Document	15
Who Prepares the Environmental Assessment Document?	18
Who Reviews the Environmental Assessment Document?	25
Who Makes the Decisions in the Environmental Assessment System?	30
Public Involvement	37
Possible Alternative Systems to Carry Out Environmental Assessment	39
Summary	54

INTRODUCTION

In recent years, massive new projects such as nuclear power plants, freeways, new towns and international airports have drawn the attention of the public to the need for increased consideration of environmental matters. This new public interest in environmental protection has also shown itself in the response to such large-scale planning efforts and resources studies as the Design for Development Program, and the Niagara Escarpment Task Force.

The Government has attached priority to the development of a comprehensive program designed to augment present pollution abatement and prevention policies.

The Ontario Government's past concern with the protection of the environment is evidenced by The Game and Fish Act, The Planning Act, The Lakes and Rivers Improvement Act, The Ontario Water Resources Act, The Beds of Navigable Waters Act, The Pesticides Act, and The Environmental Protection Act. However, this legislation has not provided the means of ensuring that all environmental factors are considered in a comprehensive and co-ordinated fashion, including public input, before major projects and technological developments proceed. It is the intention of the Government to encourage the further development within its planning process, of an environmental conscience.

In the Throne Speech of March 20, 1973, and in statements by Premier Davis, the Government has given notice that it

was studying methods of achieving a co-ordinated consideration of potential environmental effects at an early stage in the decision-making process.

The Ministry of the Environment has investigated several different approaches for achieving the objectives stated by the Government. The following pages outline the rationale for an environmental assessment program and present the advantages and disadvantages of various alternatives which are under consideration.

Before proceeding with this policy initiative, and before selecting any particular method of implementation, the Government wishes to seek out the views of interested persons and organizations. This Green Paper is intended to provide a basis for public discussion and to solicit public response.

In order to allow early action to implement the Government's intentions, submissions are requested prior to November 1, 1973. Written comments and briefs are invited and should be addressed to:

The Honourable James A. C. Auld,
Minister of the Environment,
135 St. Clair Avenue West,
Toronto, Ontario,
M4V 1P5.

THE NEED FOR ENVIRONMENTAL ASSESSMENT

Historically, the major orientation of the activities of the Ministry of the Environment, its predecessor organizations, other ministries, and progressive municipalities has been the reduction and elimination of pollution from existing sources. This abatement process is basically an "after-the-fact" strategy, prompted by an increased awareness of ecological relationships, and a growing recognition that contaminants and effluents which were once acceptable could no longer be tolerated.

While Ontario has by no means solved all of its pollution problems, it has made significant ^Ervances. Abatement objectives have been defined and, in most cases, programs have been established to see that these goals will be achieved.

Recently, the Ministry of the Environment has placed increasing emphasis on the restorative and preventive aspects of environmental management. The restorative approach complements the abatement process in that it deals with the correction of undesirable conditions, or effects of pollution, in specific areas of the environment rather than the elimination of a specific pollutant.

The preventive strategy is an attempt to identify and resolve potential environmental problems as they emerge and before actual environmental damage occurs.

Examples of the restorative approach include such programs as the Sudbury area lake restoration work (in which an effort will be made to mitigate pH problems in some of the

lakes near Sudbury), reservoir and lake mixing by reaeration (as practised in Buchanan Lake in the Muskokas), and weed harvesting and removal (as presently being undertaken in the Kawartha Lakes).

The preventive strategy for achieving environmental objectives is embodied in the existing approvals programs of the Ministry of the Environment. Considerable progress has been made, particularly in the industrial field, in ensuring that air and water pollution control equipment is incorporated in the design of new facilities. In some cases, this approach has also involved discussion of the optimum location of a new facility in terms of the capacity of receiving waters and the effects on adjacent uses, or "points of impingement."

As the abatement-oriented programs move toward the achievement of their objectives, and experience is gained in environmental enhancement and restoration programs, there is a need to expand the scope of the preventive strategy.

At present, most private sector projects come under the purview of existing environmental approvals, permit or review procedures. This scrutiny, however, tends to deal only with the particular problems which the permit or approval procedure was intended to control. Frequently, cumulative, secondary and "off-site" environmental effects have not been identified. Moreover, many major undertakings in the public sector have been promoted with insufficient attention to the environmental and social problems which might result.

A procedure should be developed to bring about an integrated consideration at an early stage of the entire complex of environmental effects which might be generated by a project. Successful implementation of such a procedure is dependent upon the exercise of powers within provincial jurisdiction. Without a strong provincial involvement in this area, society could often be in a situation of reacting to environmental problems which could have been avoided.

The essence of such a strengthened approach to prevention is not only that it would be far more effective than an unco-ordinated set of approvals procedures but that it would minimize the future need for abatement and restoration. Experience in existing programs has clearly demonstrated that it is more economic to incorporate environmental objectives at the conceptual stage of a project than to provide abatement equipment and restorative efforts as an afterthought.

With these factors in mind, the Government has indicated its intention to establish a comprehensive system of assessment and evaluation of the environmental significance of activities within both the public and private sectors.

Recently, at the ceremonies marking the completion of new treatment facilities at the Ontario Paper Company's Thorold mill, Premier Davis asserted the need for such an assessment system.

The net effect of this type of before-the-fact assessment would be to help us avoid environmental pitfalls at the outset. New projects could be analysed at the conceptual stage to allow for possible changes. Pollution control would begin at the drawing board rather than being imposed long after a facility has been built.

There are three key elements to the proposal to expand and strengthen the preventive aspect of the Province's environmental programs. These are embodied in the following three phrases: first, "integrated consideration;" second, "at an early stage;" and third, "of the entire complex of environmental effects which might be generated by a project."

The element of "integrated consideration" is based on a recognition that environmental concerns are interconnected, often causally, with concerns and decisions in the economic and social system. One purpose of introducing an environmental assessment procedure would be to ensure that potentially significant environmental effects are integrated with the other issues considered in review of major undertakings.

A related factor associated with this element of the proposal is the increasingly complex nature of government decision-making. In its Third Interim Report, the Committee on Government Productivity recognized that a great many of the issues with which government deals today cannot be neatly compartmentalized and often cut across traditional ministerial lines. The policy field structure was recommended in order to assist in the resolution of conflicts between different objectives of the government; for example, between economic development and the protection of the environment. This new machinery for policy integration places a premium on the clear definition and rational

analysis of the issues, objectives, alternatives and costs and benefits involved in a given proposal. A formal Environmental Assessment requirement is one vehicle to assist in bringing about the open and explicit analysis which is the prerequisite of rational decision-making.

Another factor implied in the element of "integrated consideration" is the need for a commitment to public participation. The perceptions, attitudes and values of members of the public can play an important role in the identification of potential impacts, the assessment of their significance, and the evaluation of the overall advantages and disadvantages, including trade-offs, involved in proceeding with an undertaking.

A second key element in the statement is that the consideration should take place "at an early stage." This is important for a number of reasons. First, it ensures that environmental factors are considered at a time when alternative courses of action, including any measures to mitigate adverse effects, and the alternative of not proceeding, are still available and before actual environmental damage occurs. Second, early assessment would enable positive public contributions at the conceptual planning stage. Last, as indicated above, it is more economical to incorporate environmental safeguards at the conceptual stage.

The third key element of the statement is that the consideration should cover "the entire complex of environmental effects which might be generated by a project." The purpose of this element is to expand the range of effects evaluated beyond

the direct impacts of the project on the air, land or water. It implies that the evaluation should also consider any potential effects on ecological processes or relationships, including the relationship of man to the environment. Finally, this element implies that secondary, as well as primary environmental effects should be considered. This means, for example, that an assessment of a proposed sewerage system should deal not only with the environmental changes likely to be caused by construction of the system; it should also describe the effects on social and economic patterns (e.g. increased land development pressure) which provision of the system is likely to induce.

The broad concept of environmental effects embodied in this element of the proposal emphasizes the point made earlier about the interconnected nature of environmental, social and economic issues. Since the environmental effects involved in an assessment are likely to transcend ministerial and policy field boundaries, a premium is placed on building a consultation and policy integration capability into any environmental assessment system.

In summary, the foregoing has attempted to outline some of the basic thinking behind the Government's decision to establish a formal environmental assessment procedure. Such a procedure would be designed to expand and strengthen the preventive aspects of Ontario's environmental management strategy. Specifically, environmental assessment is proposed as the means to achieve the following two objectives:

- To identify and evaluate all potentially significant environmental effects of proposed undertakings at a stage when alternative solutions, including remedial measures and the alternative of not proceeding, are available to decision-makers.
- To ensure that the proponent of an undertaking and governments and agencies required to approve the undertaking give due consideration to the means of avoiding or mitigating any adverse environmental effects prior to granting any approval to proceed with an undertaking.

The desirability of fulfilling these objectives should be carefully weighed. The remainder of the Paper assumes that these aims are accepted as worthwhile, at least in principle, and turns to a review of alternative means of structuring an environmental assessment system.

WHAT KIND OF UNDERTAKINGS REQUIRE ENVIRONMENTAL ASSESSMENT?

In considering the methods of structuring an environmental assessment system, one of the major questions concerns the identification of the kind of undertakings which will require an assessment. The basic objective of the environmental assessment proposal is to facilitate the identification and resolution of potentially significant environmental problems at an early stage. In the implementation of any environmental assessment system the initial emphasis would have to be placed on projects causing direct physical change. The concern in developing this aspect of the assessment system must be to establish a screening mechanism to exempt from the environmental **a**sessment requirement those undertakings which have either no impact or a relatively insignificant impact.

Screening Mechanism

In the establishment of such a mechanism it is apparent that there must be provision for the exercise of discretion. It is a relatively straightforward task to identify those kinds of projects which typically have potentially significant environmental effects and therefore require an Environmental Assessment document. Similarly, there is no great difficulty in developing a categorization of kinds of undertakings which have no potentially significant impact and thus should be exempted from the environmental assessment requirement. However, between these extremes, there is a large gray area comprised of projects which have significant impact in some circumstances and not in others.

Whether or not an Environmental Assessment document should be provided for cases in this gray area is the decision which makes the exercise of discretion necessary in any screening mechanism.

With this factor in view, it is possible to consider alternative methods of determining the kinds of projects for which an environmental assessment is required.

In a method used in the United States, under the National Environmental Policy Act, the originator is held responsible for deciding whether or not the potential impact of a proposed project is significant enough to warrant preparation of an impact assessment. The experience to date with this approach indicates that public disagreement with the decisions of originating organizations has given rise to a large number of lengthy and expensive cases.

Another possibility is to assign an individual government ministry or agency with the responsibility of prescribing those kinds of projects for which an Environmental Assessment document should be prepared. This responsibility could be handled either by writing very specific regulations or by reviewing each project on its own merits. Probably an optimal system would combine both regulation and individual project examination. No matter how well project classifications are prescribed in regulations there will be project types which fall into the gray area where individual project consideration is required.

The location of the power to make this kind of discretionary decision is not further discussed in this section. However, it is raised again for consideration in a later section

dealing with the location of decision-making authority in the environmental assessment process.

Phasing

The possibility of phasing the implementation of an environmental assessment system is another factor which arises in discussion of the kinds of undertakings for which an Environmental Assessment document should be prepared. One possibility is to begin implementation on the projects with the greatest potential impact, and then gradually extend the assessment procedure as expertise develops until all kinds of undertakings requiring assessment are covered.

The phased introduction of environmental assessment procedures would be facilitated by the use of regulations to specify classes of undertakings requiring assessment, as suggested above. In this respect, the Ontario Government favours the proposal that environmental assessment should commence with the projects of its ministries and agencies and be generally extended to the private sector only when procedures have been streamlined to the point where unreasonable delays are unlikely to occur. Nevertheless, it also seems desirable that a procedure exist to allow an assessment to be required, during the implementation period, of any private sector project which appears to involve a significant potential danger to the environment.

In connection with the phasing of implementation, a major cause of the delays experienced in the early stages of the United States' assessment system was that many undertakings were well advanced in design stages prior to proclamation of the impact

statement requirement. In Ontario, care should be taken to ensure that the phasing of implementation allows special consideration to be given to projects which are already "in the pipe."

Discussions within the Ontario Government, and knowledge of the United States' experience, indicate that originators of undertakings for which assessments will be required are likely to be concerned about several aspects of the proposal. Cost, delay, and potential disclosure of confidential information appear to be the major areas of concern. These are briefly discussed in the following.

Delay

An effort must be made to ensure that the environmental assessment requirement is co-ordinated with existing approvals procedures so that unreasonable delays can be avoided. The phased introduction of environmental assessment would allow procedures to be streamlined before a given kind of project is affected.

The time required for the preparation and review of an Environmental Assessment document will depend on the complexity of the undertaking, the degree of liaison between the proponent and the review agency, and the extent to which the proponent is able to make public disclosure at the earliest possible date on potentially contentious projects. Discussions with several major provincial agencies have indicated that it should be

possible for the environmental assessment review process to proceed in parallel with the feasibility planning stages of project design. In this case, with non-controversial undertakings, the added delay time should be negligible.

Cost

Based on experience in Ontario and other jurisdictions, the costs incurred by the proponents of an undertaking in completing an environmental assessment are less than 1% (.0013 to .0076) of the total project development costs. As a percentage of feasibility analysis costs, environmental assessment expenses on larger projects range between 4% and 7%.

Public Disclosure

In cases where disclosure might compromise the confidentiality of industrial processes or lead to escalation in prices of property or services, or when it is in the public interest to do so, an environmental assessment system should probably contain a provision to exempt proponents from the disclosure aspects of the review process. However, it must be clear that such exemptions will be very limited in application.

CONTENT OF AN ENVIRONMENTAL ASSESSMENT DOCUMENT

In order that comprehensive review of a project may be carried out, it is necessary to present the environmental considerations specifically as well as to outline the inter-relationships between environmental concerns and the economic, social and cultural systems.

The content of the Environmental Assessment document will depend on the nature of the project, the biophysical components and processes and the existing and projected environmental quality in the area affected.

A basic Environmental Assessment document will contain the following elements:

- Project Description
- Environmental Inventory
- Impact Prediction
- Evaluation

Ideally the preparation of the Environmental Assessment document will be completed in conjunction with a review agency or on the basis of guidelines issued by a reviewing agency or derived from past experience or precedent. Briefly, an Environmental Assessment will state:

Project Description

A brief but comprehensive description of the project will include a statement of objectives; a physical description of the project; an outline of the proposed construction methods; and a

description of the operating and maintenance procedures, including a quantification of inputs (raw materials, fuels) and outputs (final products or services, and effluents released in water, air and soil). A description of alternatives to the project including non-structural alternatives and alternative of not proceeding would also be provided.

Since, at some stage, the Government will assess not only the environmental impact, but also the social and economic consequences of the project, administrative experience would favour inclusion of economic, social and cultural implications (e.g. initial and prospective employment, capital investment and markets) within the project description.

Environmental Inventory

An inventory of baseline data describing all environmental components and processes of the existing environment in the area which will be affected by the project will be completed. Such an inventory might include an identification of floral and faunal composition, relationship of natural systems, inter-relationships between natural systems, components and processes, the geography of the site and surrounding area, including land use, human factors involved, description of amenities and other information which may be necessary to fully describe the existing situation.

Impact Prediction

The predicted impact of the project and its alternatives on the environmental components and processes as noted in the inventory will be described. An assessment of the social cost and benefits of the project should also be included. The temporal extent of the impact prediction will vary with the nature of the project. The parameters, basic assumptions, and methodology used for impact prediction should be identified.

Evaluation

The consequences of the project and its alternatives in terms of immediate impacts, middle term impacts and long term impacts will be evaluated. The trade-offs necessary to implement the project will be identified. This section should articulate the risks involved with undertaking the project and its alternatives as related to the capability of the environment to sustain some damage.

Throughout the Environmental Assessment document the party preparing the assessment may wish to summarize comments and derive conclusions pointing to a particular alternative. Insights and information gained from public meetings or public participation proceedings might also be included. Any contentious issues that have or have not been reconciled might also be described.

WHO PREPARES THE ENVIRONMENTAL ASSESSMENT DOCUMENT?

One of the key implementation questions concerns the assignment of responsibility for preparation of the Environmental Assessment document. Five options have been identified:

Option 1: preparation of the Environmental Assessment document could be contracted, on a project basis, to an external consultant who would conduct an appraisal independent of the proponent's control.

Option 2: the Environmental Assessment document could be prepared, in each instance, by the staff of the Ministry of the Environment.

Option 3: a new agency could be established for the purpose of preparing Environmental Assessment documents.

Option 4: individual ministries could be responsible for identifying potential impacts in their respective areas of jurisdiction.

Option 5: the Environmental Assessment could be prepared by the originator or proponent of the undertaking.

It is a basic assumption, in discussing these options, that the cost of preparing the Environmental Assessment document will be borne by the originator of the proposed undertaking.

Option 1: Independent Consultants

The possibility of assigning responsibility for preparation of environmental assessments to independent consultants has several advantages. First, an external consultant would not necessarily have any bias toward proceeding

with the proposed undertaking, and thus could be fairly objective in conducting the assessment. Second, the use of different consulting firms and project teams drawn from several firms might encourage innovative approaches to environmental assessment. Third, the Government would not be faced with the overhead costs of hiring and maintaining the multi-disciplinary teams of specialists necessary to prepare Environmental Assessment documents.

One disadvantage of this option is the possibility that some consultants' reports may tend to reflect the bias of the sponsoring agencies. Second, since no one consulting firm could, or should, prepare the Environmental Assessment documents for all projects, there would be no assurance of consistency in the matters considered, methodologies employed, or values and weights assigned to various environmental factors. This problem, however, could be remedied if the terms of reference for Environmental Assessments were set by a third party such as the Ministry of the Environment. A third problem associated with this option is that the use of an outside consultant to prepare the Environmental Assessment document may tend to isolate environmental considerations from the project planning process of the originating agency. It would thus take longer to achieve the objective of making environmental concerns an integral part of the proponent's decision making process.

Option 2 - Ministry of the Environment

The alternative of assigning responsibility for preparation of Environmental Assessment documents to Ministry of the Environment staff would optimize the use of the Ministry's staff and equipment and could avoid the necessity of developing environmental planning skills within originating agencies or relying on outside consultants. Consistency of methodology and evaluation would be an advantage of this option and Ministry of the Environment staff would obviously be in a better position to be aware of the environmental standards required of a project.

A drawback of this option is that it would, in effect, allow the originators of projects to let someone else consider the environmental consequences of their actions. The remoteness of the assessment team from those responsible for project design would make each group less sensitive to the concerns of the other. Third, it is unlikely that a central assessment group would be able, except at very high cost, to develop specialized skills related to all classes of projects. Finally, originating agencies may perceive the Ministry's commitment to environmental objectives as a bias against project approval.

Option 3: A New Environmental Assessment Agency

Establishing a new and independent agency for the purpose of preparing Environmental Assessment documents would

avoid the role conflicts and ambiguities associated with several of the other options. This option would also achieve the consistency of methodology and evaluation mentioned for Option 2. A third advantage is that a new agency would have a great deal of flexibility in organizing and staffing to carry out the assessment function.

On the negative side, a new environmental assessment agency, as in Option 2, allows the proponent to externalize the responsibility of assessing the environmental effects of proposed actions. Moreover, this option has the disadvantage of further segmenting the responsibility for environmental protection. The establishment of a new agency would, to a large extent, require the duplication of expertise and equipment available in the Ministry of the Environment.

Option 4: Assessments by Individual Ministries

Charging individual ministries with the responsibility of identifying potential impacts in their respective areas of jurisdiction is perhaps the option which most resembles the status quo. The originator would bear the responsibility of presenting its project proposal to any agency from which it required an approval. The agency responsible for issuing the approval or permit would prepare an assessment of any impacts within its area of concern which might result from the project. It would then decide whether to grant its specific approval. The principal advantage of this option is that the proponent

would deal directly with the agency with the relevant expertise.

Unless there was a change to existing notification procedures, approval agencies would frequently be unaware of proposed undertakings until late in the design stages, after the project originator had become committed to a fixed position. Response would be unco-ordinated, with each agency dealing only with the matters for which its approval function was designed, and significant potential impacts would often "fall through the cracks." In addition, no overall Environmental Assessment document would result and, without co-ordination, conflicting positions might be taken by different ministries.

Option 5: Originator or Proponent of an Undertaking

The alternative of assigning the responsibility for preparation of an Environmental Assessment document to the originator of the project has a number of advantages. First, it forces the originator of a project to realize that environmental factors must be considered. Second, it promotes the development of an environmental expertise, applicable to specialized projects, within the originating agencies. Third, by being located within the originator's organization, the environmental assessment team is able to influence project decisions from inception to implementation.

A disadvantage of this option is that smaller originating agencies may neither have the necessary environmental

skills available nor be able to justify the development of this type of capability. Another disadvantage is that the alternatives considered in the environmental assessment are likely to be confined to the scope of action available within the originating agency's jurisdiction. Third, there is little likelihood that this option would promote consistency in matters evaluated or methodologies employed. The first of these disadvantages can be resolved by allowing the originator to hire environmental consultants, but this does not solve the remaining two problems. These problems, however, along with those which arise through the use of consultants, (see Option 1) could be solved by requiring the originator (or its consultant) to prepare the Environmental Assessment document on the basis of terms of reference established by a third party, such as the agency responsible for the review of the Environmental Assessment document.

Further Discussion:

In review of the advantages and disadvantages of the options presented above, it becomes apparent that there is a need to consider organizational implications apart from the question of where to assign responsibility for preparation of Environmental Assessment documents.

Options 1 and 5, for example, raise the suggestion that terms of reference for preparation of the Environmental Assessment documents should be issued by a party without a vested interest in expediting the project concerned. This,

in turn, implies a need for a disinterested review of the completed assessment to make certain that the terms of reference are followed and to ensure that the evaluation of potential effects is reasonably objective.

Option 4, assessment by individual ministries, recognizes that the matters considered in an environmental assessment will usually involve the expertise and jurisdiction of more than one Ministry. However, this option is inadequate in that it fails to provide any co-ordinative mechanism to ensure that all potential effects are considered and to resolve conflicting positions.

Options 2 and 3, which provide for the centralized preparation of Environmental Assessment documents either by the Ministry of the Environment or a new assessment agency, would minimize the difficulties in ensuring consistency, completeness and objectivity in the evaluation of potential environmental effects. However, while these options may avoid the necessity for technical review of the completed Environmental Assessment document, the need still exists for consultation with other ministries and agencies.

Finally, the preceding discussion obviously gives rise to the question of what happens once the Environmental Assessment document is prepared? This question, and the organizational implications of the options discussed above, are the matters addressed in the next section.

WHO REVIEWS THE ENVIRONMENTAL ASSESSMENT DOCUMENT?

The discussion in this section centres on the selection of the appropriate organizational means to achieve three ends: the provision of terms of reference for preparation of Environmental Assessment, the technical review of completed Environmental Assessment documents, and the establishment of arrangements for the co-ordination of input from affected ministries and agencies. Associated organizational questions such as the means of public involvement and the location of decision-making authority are reserved for treatment later in the paper.

In considering the means of achieving the ends outlined above, three organizational options have been identified:

Option 1: the organization which prepared the Environmental Assessment document could be responsible for the co-ordination of review by affected ministries and agencies.

Option 2: the issuance of Environmental Assessment guidelines and technical review, including circulation to affected ministries and agencies, could be co-ordinated by Ministry of the Environment staff.

Option 3: issuance of Environmental Assessment guidelines and technical review, including circulation to affected ministries and agencies could be co-ordinated by an independent agency established for the purpose of reviewing Environmental Assessment documents.

It should be remembered, in the evaluation of the relative merits of these options, that not all are completely

compatible with all of the options in the section preceding.

Option 1 - Review Co-ordinated by Organization which Prepared Environmental Assessment Document

This approach is compatible with all of the preparation options except that involving identification by individual ministries of impacts within their areas of jurisdiction. However, it would appear to be best suited for use with the two options providing for centralized preparation of Environmental Assessment documents - indeed, it is the only review choice with which these options can be sensibly matched. If employed in conjunction with the preparation of Environmental Assessment documents by external consultants or the originators of undertakings, this option would fail to provide for the issuance of Environmental Assessment terms of reference and the co-ordination of technical review by a party without an apparent vested interest in the proposed undertaking.

Option 2 - Review Co-ordinated by Ministry of the Environment Staff

This review option seems most compatible for use in connection with the preparation of Environmental Assessment documents by external consultants or the originators of undertakings. If used in conjunction with either option for the centralized preparation of Environmental Assessment documents, it would be essentially a redundant process, since both of these options give a reasonable assurance of completeness

and objectivity in preparation of the assessment. If coupled with the option of impact identification by individual ministries, at least the co-ordinative aspects of this review option would be appropriate.

An advantage of this option, if matched with a compatible preparation option, is that the existing technical expertise of the Ministry of the Environment could be readily utilized. Additional technical staff requirements for review purposes would be largely limited to the establishment of a central co-ordinating group within the Ministry and minor additions to operating branches to handle increased workload. A second advantage is that the review function would be entirely consistent with the Ministry of the Environment's perceived role as the agency primarily responsible for guaranteeing Ontario's environmental quality.

A disadvantage associated with this option is the belief that the Ministry of the Environment may be in an ambiguous position in reviewing water supply and sewage treatment projects originated by its utility division. However, it should be emphasized that these projects are used by the Ministry and were used by the former O.W.R.C. as a pollution abatement device. Any ambiguity in the Ministry's position may be offset by the distinct divisional missions existing within the Ministry, and by the scrutiny of other ministries and agencies as well as members of the public.

Option 3 - Co-ordination of Review by Independent Agency

The co-ordination of the technical review function by an independent board or commission would be compatible with the same preparation options as Option 2, above. If paired with the option of centralized preparation of Environmental Assessment documents by an independent agency, this approach would be totally redundant. If applied in combination with Environmental Assessment document preparation by the Ministry of the Environment this approach would be redundant except in the case of projects originated by the Ministry of the Environment.

The main advantage of Option 3, if applied with an appropriate preparation choice, would lie in the objectivity of the review function.

This approach would be disadvantageous in several respects. First, it would mean the creation of yet another environmental agency and administrative structure. Second, it requires hiring of a large number of new staff which would largely duplicate skills available in existing ministries. Third, the establishment of an independent review agency outside the ministry structure would upset the carefully designed conflict resolution and policy integration capability of the recently created policy field structure.

Further Discussion:

In the discussion of the foregoing review options, considerable stress has been placed on the objective of ensuring

that the environmental assessment is complete and objective in its review and prediction of potential impacts. The underlying assumption is that the test of the adequacy of an assessment would be its acceptability to interested ministries and agencies, or to these as well as a co-ordinating ministry or agency. The discussion, however, has not addressed the question of how to handle divergent viewpoints which cannot be resolved by the review co-ordinator or by discussions between the parties in disagreement. Who decides which view is to prevail?

WHO MAKES THE DECISIONS IN THE ENVIRONMENTAL ASSESSMENT SYSTEM?

To address the question of where decision-making authority should reside in an environmental assessment system, it is first necessary to consider the kinds of decisions which are likely to be required. Three distinct, but closely related decision types have been identified.

First, as discussed in an earlier section, there is a necessity for discretionary decision-making power in any screening mechanism designed to determine the classes of undertakings for which Environmental Assessment documents should be prepared.

The second type of decision involves the issue raised in the previous discussion of the review option. In the event that there is an unresolved conflict about the adequacy of a completed Environmental Assessment document, there is an obvious requirement for a decision as to which viewpoint should prevail. In most cases, these conflicts will revolve around the thoroughness of the assessment or the accuracy of the impact predictions. The decisions required with respect to the final disposition of an Environmental Assessment document review appear to fall into one of two categories: a decision to accept the document as submitted, or a decision to require modification of the document so that it more completely and accurately describes the potential environmental effects of the proposed undertaking.

Given that a decision is made to accept an Environmental Assessment document as submitted or as modified, a third kind of decision is required. This decision type entails a determination of whether, in view of the potential environmental effects described in the Environmental Assessment document, the proposed undertaking should be allowed to proceed. In making this judgement, the person or organization with decision-making authority must consider not only the environmental pluses and minuses, but must also assess the entire range of advantages and disadvantages which are likely to be generated by the proposal. Potential trade-offs of, for example, environmental quality considerations in favour of economic, social or technical benefits would be weighed in this kind of decision. The final determination would be made on the basis of the decision-making authority's evaluation of whether the net advantages of the project outweighed the net disadvantages. Decisions of this type would fall into one of three categories: approval to proceed with the undertaking, approval to proceed subject to certain conditions, or refusal to approve proceeding with the undertaking.

The decisions to require an Environmental Assessment document and to accept or modify the Environmental Assessment document can be regarded as preliminary steps in the process leading to the decision of whether or not to approve proceeding with the undertaking. It seems reasonable to assume that any

organization vested with the authority to make the third type of decision would be in a position both to delegate and to review decisions of the first and second types. Thus, for the purposes of the following discussion, the location of the authority to grant or refuse approval to proceed with an undertaking is regarded as the key decision-making issue.

The following basic options have been identified with respect to the location of decision making authority within the environmental assessment system:

Option 1: authority to decide whether or not to proceed would be retained by the originator of the undertaking.

Option 2: authority to make the final decision could be vested in an independent agency or tribunal.

Option 3: authority to issue approval to proceed to rest with the Minister of the Environment, to be exercised in collaboration with other ministers as appropriate. Authority to refuse approval retained by Cabinet.

Option 4: decision making authority would be vested in an independent agency or tribunal, with provision for appeal to the Provincial Cabinet.

In assessing these options, it is important to consider their compatibility with any preferences developed for options presented in the preceding section.

Option 1: Originator Decides

This option would encourage the development of an environmental assessment system similar to that which exists

in the United States. There would be no guarantee that the originator of the undertaking would pay any attention to either the Environmental Assessment document or any comments or recommendations resulting from the technical review. Under this option, the environmental assessment system would be basically a procedural, rather than substantive, requirement. Theoretically, the originator of a project could await completion of the Assessment document and the technical review and then proceed with the undertaking without making any change whatsoever. In practice, this would be difficult, at least for originators within the Ontario Government, since the affected Ministries would be in a position to raise their concerns in Cabinet or the Policy Field Committees. With private sector projects, ministries would have to depend upon use of their existing approvals requirements to bring about any change in the nature of the undertaking.

The principal argument in favour of this option is that the originator of a project is in the best position to decide on the viability of any suggested modifications or alternatives. However, this advantage is offset by the consideration that the originating organization's commitment to its own objectives would make it unlikely that conflicting objectives would be fairly weighed.

Option 2: Decision by an Independent Agency or Tribunal

Independence and objectivity would be the main advantages of Option 2. Under this option, the decision-making

authority would never be in the position of deciding whether to accept or reject its own projects. The independence of this kind of agency, and its isolation from electoral concerns, would facilitate pursuit of objectives and solutions which were technically optimal. The decision-makers could be appointed strictly on the basis of their technical ability. An additional advantage is that this option would ease the burden on key government decision points.

Independence and freedom from electoral concerns, however, are not necessarily advantages. There are a number of drawbacks to assigning decision-making power on important policy matters to an appointed body not directly responsible to the elected representatives of the people. The types of decision required in the environmental assessment system are not exclusively technical: they involve value judgements, trade-offs and policy decisions.

As the Select Committee on the Ontario Municipal Board pointed out, administrative tribunals are not, like the courts, obliged to decide cases in strict accordance with the law but are limited only by their terms of reference:

...decisions are based on government policy, where known, but otherwise on its own policy formulated according to its interpretation of the facts and the sentiments of people.

This situation can lead to two serious problems:

Whenever it attempts to apply government policy, an appointed body runs two serious risks. First, it may misinterpret policy and thus give approval, or refuse approval, to an application

or request, without having to bear any responsibility for the consequences of its decision. A second risk is that the appointed body may gradually alter its interpretations of government policy even while continuing to observe the same basic principles.

The finality of decisions made by the agency or tribunal in this option, as well as the distinct possibility that the agency would develop a narrow environmental perspective, add to the potential for conflict with the elected decision-makers.

Option 3: Approvals by Minister of the Environment with Consultation Where Appropriate; Refusals by Cabinet.

In this approach, decision-making power would reside with elected individuals or bodies responsible to the representatives of the people in the Legislature. Environmental matters would be resolved by the Minister of the Environment but he would incorporate the views of other Ministers as necessary or appropriate. Any contentious issues could be raised in Cabinet where the responsibility for making the decision to refuse approval to proceed with an undertaking would reside. Review at these levels would ensure that the decision to approve or reject a project or undertaking would be made on the basis of full consideration of all the ramifications associated with its completion or withdrawal.

It could be said that a disadvantage of this system is that it does not isolate the final decision from electoral concerns. Inasmuch as these electoral concerns are a manifestation of the public viewpoint, this should rather be taken as a benefit of the system.

Option 4: Decisions by Independent Tribunal; Appeal to Cabinet

Option 4 is basically a variation of Option 2. It retains the independent status of the decision-making authority, but adds the possibility of an appeal to Cabinet. The advantages, hence, are essentially the same as those presented for Option 2: independence, objectivity, staffing flexibility and concern for technically optimal solutions. The addition of the appeal function also provides an avenue for bringing important matters before elected decision-makers without burdening them with day-to-day routine.

The disadvantage discussed in Option 2, with the exception of the comment about the finality of the tribunal's decision, apply to this Option as do the quotations from the Report of the Select Committee on the Ontario Municipal Board. Another drawback, associated with the appeal mechanism, is that the appeal mechanism may be used for matters not of sufficient significance to warrant Cabinet attention. As the Select Committee remarked:

Recently, the petitions by way of appeal to the Cabinet have increased considerably in number and often take many months to be disposed of - a situation which, apart from the merits of the petitions themselves, may be of great concern to the Cabinet.

It is possible that this particular problem could be remedied by introducing, as suggested for the OMB, a screening mechanism to ensure that matters which reached Cabinet were of significant importance, and involved major policy considerations.

PUBLIC INVOLVEMENT

Over the past decade there has been in Ontario a significant and often emphatic public interest in policies concerning environmental matters. Various tactics have been utilized to draw attention to opposing views. Generally such activity has occurred when little or no involvement of these people has taken place in the conceptual planning of major projects. This confrontation situation at times leads to great expense, is sometimes disruptive and may result in unbalanced conflict resolution.

Mechanisms are now being developed by some government agencies to provide opportunities for public involvement in the early stages of planning. These public contacts serve not only to sensitize project planners and the elected representatives to the attitudes, perceptions and values of local residents, but to disseminate information to the concerned citizen.

Documentation must be made public in order that all conditions and analyses are apparent. Public disclosure of information and analyses, together with public discussion will assist in raising the level of awareness of all participants. Professional opinions may also be clarified in the face of practically oriented questioning and discussions.

The originating agency must carefully time the introduction of the public into its decision-making process so that insights gained from the contacts can be taken into account during the narrowing of choices. Communication

techniques need to be refined and new approaches must be developed to maintain participation over the long term. As the length of time required to fully complete the process is unpredictable, it will often necessitate an increase in the proponent's lead time for projects.

The public should not demand the right to be meaningfully involved without accepting the obligation to participate in a responsible way. Decision-makers may wish to screen the inputs received from the public involvement process.

As not all proponents have the resources or the inclination to provide public involvement opportunities in the Environmental Assessment process, it will be necessary to ensure that a mechanism is generally available to achieve public review and comment. This can be done by establishing a hearing procedure operated as a tribunal with quasi-judicial procedures or as an advisory forum where viewpoints, values and perceptions can be discussed and reconciled. It should be cautioned that public hearings at a review stage do not always represent meaningful public involvement but rather should be seen as a reinforcement to any proceedings developed by the proponent for involving the public during preparation of the Environmental Assessment document.

To summarize, direct public involvement should be a basic feature of whatever environmental assessment system is developed.

POSSIBLE ALTERNATIVE SYSTEMS TO CARRY OUT ENVIRONMENTAL ASSESSMENT

A comprehensive system for environmental assessment must address the questions raised in the preceding sections: in particular, who prepared the Environmental Assessment document, who reviews the Environmental Assessment document, and who makes the decisions in the environmental assessment system.

Obviously the different options that have been suggested for each system component could be combined so as to yield a very large and unmanageable number of conceivable systems.

To achieve a meaningful discussion, the number of alternate processes which are being presented has been limited to four. These have been chosen so as to emphasize the basic principles which must be decided upon and also to represent as faithfully as possible the best of those suggestions made in the past from both government and non-government sources. This should not preclude the consideration of other alternative systems.

Regardless of which system is chosen, it appears that significant public participation will be an integral part of it.

System "A"

- INDEPENDENT HEARING AGENCY ESTABLISHED
- PREPARATION OF ASSESSMENT BY MINISTRY OF ENVIRONMENT
- NO COMPREHENSIVE CIVIL SERVICE REVIEW OF ENVIRONMENTAL ASSESSMENT DOCUMENT
- HEARINGS HELD BY HEARING AGENCY
- DECISION MADE BY HEARING AGENCY, SUBJECT TO APPEAL TO CABINET.

System Characteristics

All Environmental Assessment documents would be prepared by the staff of the Ministry of the Environment who would set their own terms of reference based on Ministry policy and any past precedents established by the Hearing Agency. The Ministry of the Environment staff would start environmental assessment while the proponent is carrying out conceptual planning. Review would be left to the general public as a part of the hearing process. However, other government agencies would be circulated as a part of the preparation of the Environmental Assessment document. There would be notification of the completion of all Assessment documents. Hearings would be held for all projects with all documentation being made available for public review.

The Hearing Agency would make a decision on each project based on the matters raised at the hearing.

There would be provision for appeals to Cabinet.

Discussion

Lacking a co-ordinated professional review, it would be necessary in this system to make public hearing mandatory on all projects assessed in order to have an effective check on the credibility of assessments. This in turn should result in a higher degree of public participation than with some of the other alternatives.

If a tribunal process were followed all documents would likewise have to go into the public record including any conflicting opinion of a technical nature. This would be desirable in that full public information would be achieved and an informed public should lead to more meaningful debate.

Assessment of all projects by a single agency would undoubtedly mean consistent approach and methodology in preparation of Assessment documents which would imply an easier comprehension and processing by the hearing tribunal.

In many organizations there are established, traditional solutions to problems which often preclude the examination of untried alternatives. The employment of the Ministry of the Environment staff to carry out assessment will provide a new perspective to offset the outlook of the proponent. This will at times force the consideration of alternatives, some of which may, on environmental grounds, be far superior. The argument might be presented that this worthwhile goal could be achieved in other proposed systems in the review process. In response,

it should be pointed out that review normally occurs after significant planning has already taken place. Once the proponent organizations learn to bring the environmental assessment analysts in at the conceptual planning stage this external perspective would become functional.

A tribunal system to achieve both review and public participation will build up a history of cases and precedents. This history should facilitate the processing of subsequent project assessments of a similar nature. Conversely, a tribunal system would in the early years be a costly and time consuming process. Without a prior review procedure the hearing body would not only be rendering judgement, they would in effect be screening and collating diverse comment from different government agencies. This type of activity would more efficiently be carried out by a professional staff in a formal review process. It is possible that this shortcoming will result in a less than comprehensive consideration of alternatives.

Being divorced from the ministerial structure of government, the hearing body would not be able to ensure that follow up monitoring was carried out when necessary. Even if agreements were drawn with line ministries to do these studies the tribunal would not have the mandate nor administrative machinery to verify compliance.

Under this system, interministerial policy conflicts would sometimes be resolved by the Hearing Agency. External resolution of policy conflicts would undermine the recent

restructuring of Government and the functioning of the policy fields which were established to bring about internal resolution of these policy differences.

In this system, since the Assessment document is prepared centrally, the originating organization may tend to regard the environmental effects of its actions as the responsibility of someone else. This would be contrary to one of the underlying motivations for establishing an environmental assessment process.

System "B"

- INDEPENDENT ENVIRONMENTAL ASSESSMENT COMMISSION ESTABLISHED
- PREPARATION OF ASSESSMENT DOCUMENT BY THE PROPONENT
- REVIEW BY STAFF OF ENVIRONMENTAL ASSESSMENT COMMISSION
- PUBLIC HEARINGS HELD AT DISCRETION OF COMMISSION
- DECISION MADE BY ENVIRONMENTAL ASSESSMENT COMMISSION. NO APPEALS.

System Characteristics

Terms of reference would be established between the originator and the staff of a new organization acting independently of the government's normal ministerial structure.

The originator would prepare the Environmental Assessment document for preliminary review and would redraft a final Assessment document to incorporate the review comments of the Environmental Assessment Commission staff. The appropriate government ministries would be circulated to obtain their comments as part of the review process.

Notification of receipt of the final Environmental Assessment document would be made, and this document along with review comments and analyses would be provided for public refusal.

Public hearings would be held at the discretion of the Environmental Assessment Commission.

The Commission would make a final decision on approval of the project.

Discussion

This system makes the proponent responsible for describing the impacts and possible results of completing an undertaking. Because the Environmental Assessment Commission is set up outside of the existing ministerial framework it could become an independent environmental "watchdog". Due to its position, the activities of the Environmental Assessment Commission could, however, create policy conflicts with the line ministries.

Staff of the independent Environmental Assessment Commission would not necessarily be constrained by existing Civil Service practices or procedures such as those related to the oath of secrecy or the principle of ultimate responsibility to a Minister. Proponent agencies dealing in sensitive or confidential matters may be hesitant to entrust such documents to non-civil servants if there is the possibility of a security leak. This may undermine the principle of having the environmental assessment done at the conceptual planning stage.

The utilization of an independent commission having its own qualified professional staff would help to ensure that an unbiased viewpoint and appraisal was inserted into the system. This would, however, necessitate costly duplication of staff.

The establishment of an Environmental Assessment Commission outside of existing governmental structures with the power to make a final decision is inconsistent with one of the fundamental principles of the parliamentary system; i.e. accountability of decision makers to the Legislature.

On points of law there would be provision for appeals to the courts. As no direct accountability to the Legislature is provided, special procedures will have to be developed in order that the terms of reference of the Environmental Assessment Commission could be amended from time to time as conditions and circumstances change.

Public involvement is left to the discretion of the Commission. This is an advantage when dealing with simple, routine projects or projects during which the public has been adequately involved in an "open planning" process by the proponent. However, the use of such discretionary power by an agency not directly accountable to the elected representatives could be a serious disadvantage.

The Commission, with a flexible mandate, could initiate the consideration of innovative approaches to the solution of environmental problems. However, unless the Commission was also given the authority to implement, the effective realization of their initiatives would rest within the ministerial structure.

Lacking jurisdiction and facilities, the Commission would have to rely on the ministries to carry out follow-up monitoring.

Finally, it should be pointed out that there would be two environmental entities if the Commission were created. This situation could cause a disturbing confusion in the public mind.

System "C"

- ASSESSMENT DOCUMENT PREPARED BY PROJECT PROPONENT
- REVIEW CO-ORDINATED BY MINISTRY OF THE ENVIRONMENT
- HEARINGS HELD BY ENVIRONMENTAL REVIEW BOARD AT DISCRETION OF MINISTER OF THE ENVIRONMENT
- APPROVALS BY MINISTER OF THE ENVIRONMENT WITH CONSULTATION WHERE APPROPRIATE
- REFUSALS BY CABINET

System Characteristics

The Ministry of the Environment would provide the originating organization with terms of reference for each project requiring an assessment.

The originator would prepare the Assessment document either with his own staff resources or with the help of consultants.

A preliminary Assessment document would be reviewed by the Ministry of the Environment. Circulation to other government agencies would be an integral part of the review. The originator would be responsible for redrafting a final Assessment incorporating the review concerns.

Notification of receipt of the final Assessment would be made public and pertinent documents would be made available for public scrutiny.

Public hearings would be held by the Environmental Review Board if deemed necessary by the Minister.

Based on recommendations of the Review Board, the Minister could decide to approve the project proposal outright or to approve it with terms and conditions, in collaboration with other Ministers when appropriate.

For those projects appearing to be environmentally unacceptable the Minister of the Environment would recommend to Cabinet that the project not be approved.

Cabinet would make a final decision as to whether the project would be allowed to proceed.

Discussion

This system would provide not only for the efficient use of existing staff resources but should also result in the development of a highly skilled group of reviewers that would provide a continuity to the process. With a co-ordinated circulation and review process, and with the direct involvement of Ministry of the Environment staff throughout the process there should be a consistency in the application of environmental policy in the Province. In the same vein, there would be some assurance that any follow-up environmental monitoring required would be carried out, since this work would usually be done by the Ministry of the Environment.

One of the prime features of this alternative is that it holds the proponent of an undertaking responsible for assessing the environmental effects of his actions. This should provide an opportunity for environmental concerns to have an influence on decisions in the earliest stages of planning.

The provision of public participation through the Environmental Review Board hearings and public accessibility to pertinent documentation and the decisions based on hearings, would help to bring the complexities of the environmental policy making function to the public attention.

Finally, this proposed process is fully consistent with the present parliamentary system in that it retains ultimate responsibility for decision-making in the hands of the elected representatives.

On the negative side, the proposed Environmental Review Board would only have the power to recommend and it could be argued that it is therefore vulnerable to being ignored in the making of decisions. If there is publication of final decisions where hearings have been held, this argument loses credibility.

If there is no public involvement in major undertakings until the final assessment is presented in public hearing there is a very real danger of a misreading of public feeling by the civil servant. If this happens it is clear that some proposals will be rejected after extensive and costly planning has already been accomplished. To avoid such situations would require public participation in conceptual planning as now happens with some proposed major highways and more recently, with Ontario Hydro projects. It is not foreseen that the Ministry of the Environment would or should have the authority to force other agencies of government or private institutions to involve the public in the early planning stages.

Rather such involvement would have to result from persuasion and a recognition by other organizations that this involvement is in the long term, to their own interest.

As the Environmental Review Board, as proposed, will have no professional staff of its own it will have to depend on the objectivity of staff of the Ministry of the Environment. Since the Ministry of the Environment will be issuing guidelines to the proponent as well as reviewing the Environmental Assessment document it would appear that the recommendations of the Environmental Review Board to the Minister of the Environment could be outweighed by the opinions of the Ministry's technical staff.

It can be charged that the Ministry should not be responsible for reviewing its own project assessments. Possible means to avoid this conflict are the circulation of Ministry proposals to other agencies of government and mandatory hearings on this class of projects.

System "D"

- COMMISSIONS OF INQUIRY ESTABLISHED FOR MAJOR PROJECTS ON AD HOC BASIS
- ASSESSMENT BY CONSULTANTS RETAINED BY COMMISSION OF INQUIRY
- NO COMPREHENSIVE CIVIL SERVICE REVIEW OF ASSESSMENTS
- HEARINGS HELD BY COMMISSION
- DECISION MADE BY CABINET

System Characteristics

The government would identify those projects requiring environmental assessment and public hearing as they develop and would appoint commissions of inquiry under The Public Inquiries Act.

When appointed, the commission would hire a consultant to carry out an environmental assessment.

Hearings would be held on all such projects, with all documentation being made available for public perusal.

The commission of inquiry would make recommendations to Cabinet or a delegated member of Cabinet based on the work of the consultants and the public hearings. Cabinet would make a final decision with no provision of an appeal mechanism.

Discussion

One of the prime features of this system would be that only potentially contentious major projects would be assessed and

be subject to hearings. This ensures that minor projects and those with insignificant environmental impact would not have to be processed.

On the other hand, overall environmental protection may be less effective since many projects with possibly serious environmental effects might go unassessed.

Another serious drawback of this alternative is that those projects nominated for public inquiry would probably have gone through significant planning, even to the point of commitment, before assessment and the examination of other alternatives begins. This can be highly disruptive with traumatic consequences for the proponent's long range planning.

The integration of environmental concerns with engineering and economic considerations in conceptual planning is lost. With this system, such integration would, in most cases, be imposed at a late stage. For those projects not subject to inquiry, there would often be no environmental planning done.

It is probably true that those agencies subjected to public inquiry would subsequently develop an assessment capability and process to avoid future inquiries, or if they were held, to be prepared for them. In other words, this system would encourage the natural evolution of an unofficial environmental assessment process including the circulation of project proposals to other government agencies for review and comment. This would be desirable in the sense that each agency would have the opportunity

to develop a procedure best suited to its own needs. However, there would be problems in such a natural evolution with duplications, inconsistent systems and funding for the required staff resources.

The proposal suffers a serious drawback in that it is the most discretionary of all alternatives and saddles the Government with the task of both identifying proposals that should be submitted to public examination and making the decisions required by the recommendations of the Commissioner of Inquiry.

An attractive advantage lies in the appointment of commissioners, outside of government, for limited terms who can be chosen for their suitability to examine a specific project. This may also cause difficulties since the types of individual required would often be unable to interrupt their careers for short-term appointments.

The proposal is consistent with the existing parliamentary process in that the Cabinet would bear responsibility for final decision.

SUMMARY

In summary, the Green Paper has attempted to describe the basic thinking which underlies the Government's decision to establish a formal environmental assessment procedure. Any system adopted would expand and strengthen the preventive aspects of the Province's present environmental management strategy. In addition, the environmental assessment system would bring about an integrated consideration at an early stage of the entire complex of environmental effects which might be generated by a project.

The various questions, issues and options which an environmental assessment system must address include:

- responsibility for preparing the Environmental Assessment document
- responsibility for review of the Environmental Assessment document
- allocation of decision-making authority
- public involvement.

For the selected environmental assessment systems to work efficiently, a screening process will have to be developed to exempt undertakings with no impact or insignificant impact from the environmental assessment requirement. There are a number of screening mechanisms possible, all of which include provision for the exercise of discretion. When it has been determined that an undertaking requires an environmental assessment, the document, prepared on the basis of guidelines, will include: a project description, an environmental inventory, an impact prediction and an evaluation of the consequences of the proposal.

The range of options presented for various components, and the number of alternative configurations of components possible, make it impractical to examine all potential assessment systems. For discussion purposes, four alternative systems have been chosen. These are:

System "A"

- INDEPENDENT HEARING AGENCY ESTABLISHED
- PREPARATION OF ASSESSMENT BY MINISTRY OF ENVIRONMENT
- NO COMPREHENSIVE CIVIL SERVICE REVIEW OF ENVIRONMENTAL ASSESSMENT DOCUMENT
- HEARINGS HELD BY HEARING AGENCY
- DECISION MADE BY HEARING AGENCY, SUBJECT TO APPEAL TO CABINET.

System "B"

- INDEPENDENT ENVIRONMENTAL ASSESSMENT COMMISSION ESTABLISHED
- PREPARATION OF ASSESSMENT DOCUMENT BY THE PROPONENT
- REVIEW BY STAFF OF ENVIRONMENTAL ASSESSMENT COMMISSION
- PUBLIC HEARINGS HELD AT DISCRETION OF COMMISSION
- DECISION MADE BY ENVIRONMENTAL ASSESSMENT COMMISSION. NO APPEALS.

System "C"

- ASSESSMENT DOCUMENT PREPARED BY PROJECT PROONENT
- REVIEW CO-ORDINATED BY MINISTRY OF THE ENVIRONMENT
- HEARINGS HELD BY ENVIRONMENTAL REVIEW BOARD AT DISCRETION OF MINISTER OF THE ENVIRONMENT
- APPROVALS BY MINISTER OF THE ENVIRONMENT WITH CONSULTATION WHERE APPROPRIATE
- REFUSALS BY CABINET.

System "D"

- COMMISSIONS OF INQUIRY ESTABLISHED FOR MAJOR PROJECTS ON AD HOC BASIS
- ASSESSMENT BY CONSULTANTS RETAINED BY COMMISSION OF INQUIRY
- NO COMPREHENSIVE CIVIL SERVICE REVIEW OF ASSESSMENTS
- HEARINGS HELD BY COMMISSION
- DECISION MADE BY CABINET.

The Ontario Government is aware of the significant implications of the proposals advanced in this Green Paper. By definition, the Green Paper is a discussion document designed to describe a policy issue, to outline alternative proposals and to solicit public response prior to any action.

It is hoped that the range of options and alternatives which arise from the discussion in this Green Paper will be given careful consideration by citizens of the Province.